

Application No. 09/724,553
Amendment dated May 5, 2003
Reply to Office Action of November 4, 2002

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of the claims:

1. (Currently amended) A method of modulating a biological function of an endothelial cell or hematopoietic cell, comprising introducing into the cell an agent that inhibits binding of a PDZ protein and a PL protein in the cell, thereby modulating the biological function, wherein

the PL is selected from the group consisting of ~~CD105, VCAM1, CD95, Spectrin β, KV1.3, DNAM1, Neuregulin 3, CD44, CD38, CD3η, LPAP, CD46, CDw128B, DOCK2, PAG, CD34, and BLR 1~~; and

the PDZ is selected from the group consisting of ~~MPP1, K303, K807, DLG1, PSD95, NeDLG, IP43, LDP, LIM, K545, TIP1, PTN 4, CBP, AF6, PDZK1, DLG5, Syntenin, WWP3, and K561~~.

2-4. (Canceled)

5. (Original) The method of claim 2 wherein the agent is a peptide comprising a sequence of at least the carboxy-terminal two residues of the PL protein.

6. (Original) The method of claim 4 wherein the agent is a peptide comprising a sequence of at least the carboxy-terminal three residues of the PL protein.

7. (Currently amended) The method of claim 2 1 wherein the agent is a small molecule or peptide mimetic of the carboxy-terminus of the PL protein.

8. (Currently amended) The method of claim 4 1, wherein the cell is a T cell or a B cell.

9-15. Canceled.

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16. (Currently amended) A method of modulating a biological function of a cell, comprising introducing into the cell an antagonist that inhibits binding of a PDZ protein and a PL protein in the cell, wherein,

- a) the PDZ protein is MPP1 (p55) and the PL is Spectrin β ;
- b) the PDZ protein is K303 and the PL is Spectrin β ;
- c) the PDZ protein is K807 and the PL VCAM1, Spectrin β , KV1.3, ~~Neuroligin 3, CD38, CD3 η , LPAP, CD46 (form 1), CDw128B, DOCK2, PAG, CD34, or BLR-1~~;
- d) the PDZ protein is DLG1 and the PL is Spectrin β ;
- e) the PDZ protein is PSD95 and the PL is Spectrin β , CD34, or CD38;
- f) the PDZ protein is NeDLG and the PL is Spectrin β or CD38;
- g) the PDZ protein is TAX IP43 and the PL is Spectrin β or CD38;
- h) the PDZ protein is LDP and the PL is CD38;
- i) the PDZ protein is LIM and the PL is CD105;
- j) the PDZ protein is K545 and the PL is CD105;
- k) the PDZ protein is TIP1 and the PL is CD95, KV1.3, CD3 η , LPAP;
- l) the PDZ protein is PTN-4 and the PL is Spectrin β ;
- m) the PDZ protein is CBP and the PL is Spectrin β ;
- n) the PDZ protein is AF6 and the PL is Spectrin β ;
- o) the PDZ protein is PDZK1 and the PL is BLR-1;
- p) the PDZ protein is DLG5 and the PL is Spectrin β ;
- q) the PDZ protein is Syntenin and the PL is CD44;
- r) the PDZ protein is WWP3 and the PL is VCAM1, Spectrin β , DNAM1, Neuroligin 3; or
- s) the PDZ protein is K561 and the PL is BLR-1.

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17. (Original) The method of claim 16 wherein the cell is a hematopoietic cell.

18. (New) The method of claim 1 wherein the cell is a hematopoietic cell.

19. (New) The method of claim 18, wherein the biological activity is an immune response.

20. (New) The method of claim 19, wherein the immune response is activation of a T-cell or a B-cell.